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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,817	08/21/2003	Laughlin G. McCullough	2002U015.US	7876
7590 09/28/2004				
Univation Technologies, LLC Suite 1950 5555 San Felipe Houston, TX 77056			EXAMINER LU, C CAIXIA	
			ART UNIT 1713	PAPER NUMBER

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/645,817

Applicant(s)

MCCULLOUGH ET AL.

Examiner

Caixia Lu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 17-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/24/04&8/21/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a process of making a supported catalyst composition, classified in class 502, subclass 104.
 - II. Claims 17-20, drawn to a catalyst composition, classified in class 502, subclass 119.
 - III. Claims 21-33, drawn to a polymerization process, classified in class 526, subclass 129.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the catalyst can be prepared by a materially different process wherein the fluorinated support does not contain detectable hydroxyl groups.
3. Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, the process of making catalyst and process of polymerization, are having different functions.

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4. Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be prepared by a catalyst compositions wherein the support is not fluorinated.
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
6. Because these inventions are distinct for the reasons given above and the search required for one of the groups is not required for the rest of the groups, restriction for examination purposes as indicated is proper.
7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
8. During a telephone conversation with attorney Kevin Faulkner on September 4, 2004 a provisional election was made without traverse to prosecute the invention of Group I, claim1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-33 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

(i) Line 1, the term "supported activator composition" should be replaced with --supported catalyst composition--. Applicants' attorney Kevin Faulkner has confirmed that such amendment is intended, thus, the restriction requirements and the rest of the claims are treated as if the term "supported activator composition" has been replaced with --supported catalyst composition-- to avoid unnecessary rejections.

(ii) Lines 4 and 5 respectively, the term "inorganic oxide" should be replaced with --support-- in order to have proper antecedent base in the claim as well as for providing proper antecedence for the polymer supports of claim 13.

Claim 3

As the claim is written, it is not clear whether the "a catalyst compound" is the catalyst of claim 1 or is a catalyst rather than the catalyst of claim 1. Clarification is requested.

Claim 4

(i) The limitation "Group 15-containing catalyst compound" lacks definition. In general, the catalyst compound for olefin polymerizations needs to contain a transition metal.

(ii) The selective format of "selected from ... and..." is improper in that it is not clear whether the individual members in the group are selected in alternatives only or in both alternatives and combinations. In general, when the members of in the group are individually chosen as alternatives, the format, "selected from A, B,..., or X" or "selected from the group consisting of A, B,..., and X", should be used; and when the members in the group are chosen both in alternatives and combinations, the format "selected from the group consisting of A, B,..., X, and mixtures thereof" should be used. See MPEP 2173.05 (h).

Applicants are advised to amend the selective formats of the instant claims according to the above guidance.

Claim 9

The base of the weight percentage of aluminum is not defined.

Claim 12

The term "metallocene-type" lacks definition because "type" extends the scope of "metallocene" and the scope of the term would not be reasonably apprized.

Allowable Subject Matter

12. Claims 1-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.


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Carnahan et al. (US 6,475,945) teaches a process of making a catalyst system comprising contacting tris(perfluorophenyl) aluminum with alkyl aluminum treated silica and then a metallocene complex. However, Carnahan does not teach or reasonably suggest the fluorided silica support. Specia (US 6,368,999) teaches a process of making a catalyst system comprising contacting activator such as an organoaluminum containing fluoride substituted phenyl and fluorided silica, and then a metallocene complex. It may have been obvious to employ Carnahan's tris(perfluorophenyl) aluminum to Specia's polymerization process, however, the combined teaching of the cited prior art does not teach or reasonably suggest the fluorinated support possesses from 0.001 to 1 mmol OH/g of support. Therefore, the claimed subject matter is deemed to be novel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.


Caixia Lu, Ph. D.
Primary Examiner
Art Unit 1713